Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Laevolac Plum 10 g/15 ml oral solution

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

One sachet (15 ml) contains 10 g Lactulose (as lactulose liquid).
For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Oral solution.
Clear colourless to pale brownish yellow, viscous solution with plum odour and taste.

4 CLINICAL PARTICULARS

4.1 Therapeutic Indications

- Symptomatic Treatment of Constipation.

Laevolac Plum 10 g/15 ml oral solution is indicated in adults and in children and adolescents aged 7 to 18 years.

4.2 Posology and method of administration

Posology
Laevolac Plum may be administered diluted or undiluted. The dose should be titrated according to the clinical response. Lactulose may be given as a single daily dose or in two to three divided doses.

A single dose of lactulose should be swallowed in one and should not be kept in the mouth for an extended period of time.

The posology should be adjusted according to the individual needs of the patient. The starting dose can be adjusted after adequate treatment effect individually (maintenance dose). Several days (2 - 3 days) of treatment may be needed in some patients before adequate treatment effect occurs. In case of single daily dose, this should be taken at the same time of the day, e.g. during breakfast. During the therapy with laxatives it is recommended to drink sufficient amounts of fluids (1.5 - 2 l / day, equal to 6 - 8 glasses).

If diarrhoea occurs, the dosing regimen should be reduced.

	Starting dose		Maintenance dose	
Adults	15 - 45 ml daily	1 - 3 sachets, corresponding to 10 - 30 g lactulose	15 - 30 ml daily	1 - 2 sachets, corresponding to 10 - 20 g lactulose

In elderly patients (≥ 65 years) and patients with renal or hepatic insufficiency no special dosage recommendations exist.

Paediatric population

	Starting dose		Maintenance dose	
Adolescents over	15 - 45 ml	1 - 3 sachets, corresponding to	15 - 30 ml	1 - 2 sachets, corresponding to

14 years	daily	10 - 30 g lactulose	daily	10 - 20 g lactulose
Children and Adolescents (7 - 14 years)	15 ml daily	1 sachet, corresponding to 10 g lactulose	15 ml daily	1 sachet, corresponding to 10 g lactulose

For a precise dosing for babies, toddlers and children up to 6 years, lactulose is available in bottles.

Method of administration
Oral use.

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The duration of treatment has to be adopted according to the symptoms.

4.3 Contraindications

- Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.
- Use in patients with galactosaemia.
- Acute inflammatory bowel disease (ulcerative colitis, Crohn's disease), gastrointestinal obstruction or subocclusive syndromes, digestive perforation or risk of digestive perforation, painful abdominal syndromes of undetermined cause.

4.4 Special warnings and precautions for use

In case of insufficient therapeutic effect after 3 days consultation of a physician is advised.
From the route of synthesis Laevolac Plum may contain small amounts of sugars (not more than 67 mg/ml lactose, 100 mg/ml galactose, 67 mg/ml epilactose, 27 mg/ml tagatose and 7 mg/ml fructose).
Lactulose should be administered with care to patients who are intolerant to lactose.
The dose normally used should not pose a problem for diabetics. 15 ml of lactulose contain 42.7 KJ (10.2 kcals) = 0.21 BU.
Patients with rare hereditary problems of galactose or fructose intolerance, lactase deficiency or glucose-galactose mal-absorption should not take this medicine.

For patients with gastro-cardiac syndrome (Roemheld syndrome) lactulose should only be taken after consultation of a physician. If symptoms like meteorism or bloating occur in such patients after lactulose intake, the dose should be reduced or the treatment should be discontinued.

Chronic use of unadjusted doses and misuse can lead to diarrhoea and disturbance of the electrolyte balance.

For elderly patients or patients that are in bad general condition and who take lactulose for a more than 6 months period, periodic control of electrolytes is indicated.

During the therapy with laxatives it is recommended to drink sufficient amounts of fluids (1.5 - 2 l / day, equal to 6 - 8 glasses).

Paediatric Population:
Use of laxatives in children and adolescents should be exceptional and under medical supervision.
Lactulose should be administrated with caution in infants and small children with autosomal recessive hereditary fructose intolerance.
The defecation reflex may be altered during the treatment with lactulose.

4.5 Interaction with other medicinal products and other forms of interaction

Lactulose may increase the loss of potassium induced by other drugs (e.g. thiazides, steroids and amphothericin B). Concomitant use of cardiac glycosides can increase the effect of the glycosides through potassium deficiency.
With increasing dosage a decrease of pH-value in the colon is found. Therefore drugs which are released in the colon pH-dependently (e.g. 5-ASA) can be inactivated.

4.6 Fertility, pregnancy and lactation

Pregnancy
There are no or limited amount of data from the use of lactulose in pregnant women. There are no relevant epidemiological data available. No effects during pregnancy are anticipated, since systemic exposure to lactulose is negligible.
Animal studies are insufficient with respect to reproductive toxicity, but do not indicate a teratogenic potential (see section 5.3).
Laevolac Plum can be used during pregnancy, if considered necessary.

Breast-feeding
No effects during pregnancy are anticipated, since systemic exposure to lactulose is negligible.
Laevolac Plum can be used during breastfeeding, if considered necessary.

Fertility
For Laevolac Plum no clinical data on the effects on fertility are available.

4.7 Effects on ability to drive and use machines

Laevolac Plum has no or negligible influence on the ability to drive and use machines.

4.8 Undesirable effects

Flatulence may occur during the first few days of treatment. As a rule it disappears after a couple of days. When dosages higher than instructed are used, abdominal pain and diarrhoea may occur. In such a case the dosage should be decreased.

Because the following reactions were reported spontaneously from a population of uncertain size, the frequency is not known, i.e. the frequency cannot be estimated on the basis of the available data.

Gastrointestinal disorders
Flatulence, nausea and vomiting; if dosed too high, abdominal pain and diarrhoea

Investigations
Electrolyte imbalance due to diarrhoea

Reporting of suspected adverse reactions
Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit / risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via HPRA Pharmacovigilance, Earlsfort Terrace, IRL – Dublin 2; Tel: +353 1 6764971; Fax: +353 1 6762517. Website: www.hpra.ie; E-mail: medsafety@hpra.

4.9 Overdose

If the dose is too high, the following may occur:
Symptom: Diarrhoea and abdominal pain.
Treatment: Cessation of treatment or dose reduction. Extensive fluid loss by diarrhoea or vomiting may require correction of electrolyte disturbances.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Osmotically acting laxatives, ATC code: A06A D11

Lactulose is a synthetic disaccharide formed from D-galactose and fructose. In the colon lactulose is metabolised by bacterial enzymes to short chained fatty acids mainly lactic and acetic acid as well as methane and hydrogen. This effect leads to a decrease of the pH-value and an increase of the osmotic pressure in the colon. This causes stimulation of peristalsis and an increase of the water content of the faeces.
Lactulose as a prebiotic substance strengthens the growth of bifidobacteria and lactobacilli, whereas clostridium and Escherichia coli may be suppressed.

5.2 Pharmacokinetic properties

Lactulose is practically not absorbed, because in man there is no corresponding disaccharidase available in the upper intestinal tract. Not being absorbed as such, it reaches the colon unchanged. There it is metabolised by the colonic bacterial flora. Metabolism is complete at doses up to 25 - 50 g or 40 - 75 ml; at higher dosages, a proportion may be excreted unchanged.

5.3 Preclinical safety data

Non-clinical data reveal no special hazard for humans based on studies of single and repeated dose toxicity.
A long term animal study does not indicate a carcinogenic potential. Tests on genotoxicity are not available. Lactulose was not teratogenic in mice, rats and rabbits. There is no data available on fertility and on the development pre and postnatal exposure.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Plum flavour. The plum flavour consists of plum extract, ethyl alcohol, propylene glycol, aromatic substance and caramel colour.

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

3 years
Partially used sachets have to be discarded.

6.4 Special precautions for storage

Do not store above 25°C.

6.5 Nature and contents of container

Sachets containing 15 ml made of polyester / aluminium / polyethylene layer membrane: 10 and 20 sachets.
Not all pack sizes may be marketed.

6.6 Special precautions for disposal

No special requirements.

7 MARKETING AUTHORISATION HOLDER

Fresenius Kabi Austria GmbH
Hafnerstraße 36
8055 Graz
Austria

8 MARKETING AUTHORISATION NUMBER

PA0773/005/001

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 11th July 2014

Date of last renewal: 26th January 2017

10 DATE OF REVISION OF THE TEXT

October 2016